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(54) Pump dispenser having vertical plunger with molded outlet check seat

(57) One-piece tubular plunger (14) has outlet valve compartment (72) comprising a hollow barrel (73) having an annular lip (74) at its lower end. The lip (74) forms a seat for the outlet ball check (82). Ribs (66A) extend inward to meet and reinforce the barrel above the lip (74).

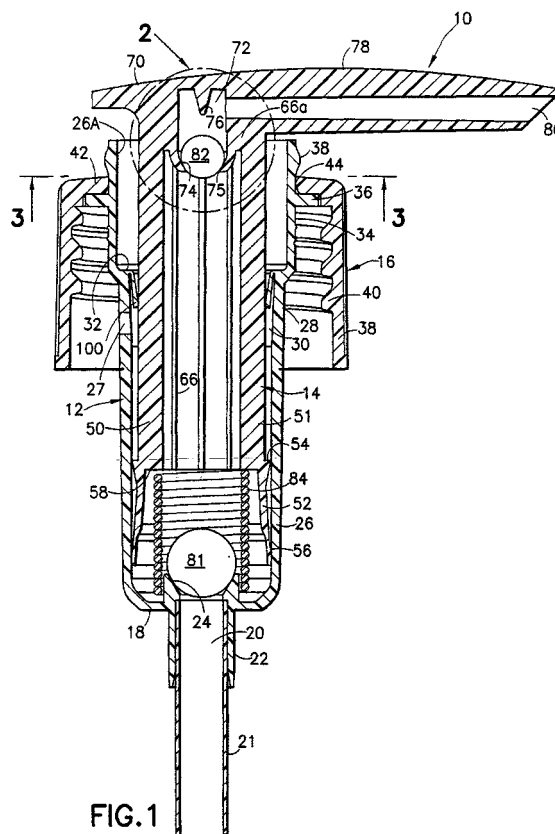


FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 00 11 6250

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 3 128 018 A (COOPRIDER, REX C. ET AL) 7 April 1964 (1964-04-07) * column 2, line 15 - column 3, line 45; figure 1 *	1,7	B05B11/00 B65D47/34
A	--- PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12, 25 December 1997 (1997-12-25) -& JP 09 220502 A (YOSHINO KOGYOSH CO LTD), 26 August 1997 (1997-08-26) * abstract; figures 4-6 * -----	1,7	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B05B
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 26 March 2003	Examiner Innecken, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 00 11 6250

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82